

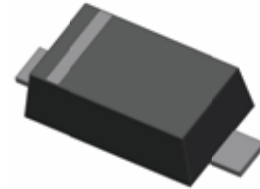
SOD-523 SURFACE MOUNT

Very Small Outline Flat Lead Plastic Package

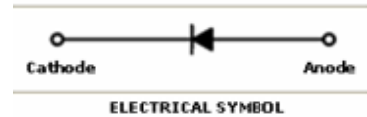
Transient Voltage Suppressors

ESD Protection Diodes

Green Product



SOD-523 Flat Lead



Absolute Maximum Ratings T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{pp}	IEC61000-4-2(ESD) Air Contact	±15 ±8	KV
ESD	Per Human Body Model	16	KV
P _d	Power Dissipation (Note 1)	150	mW
T _{STG}	Storage Temperature Range	-55 to +150	°C
T _J	Operating Junction Temperature	+150	°C
T _L	Max Lead Solder Temperature range (10 Second Duration)	260	°C

These ratings are limiting values above which the serviceability of the diode may be impaired.
 Note 1. FR-5 = 1.0 x 0.75 x 0.62 in.

Specification Features:

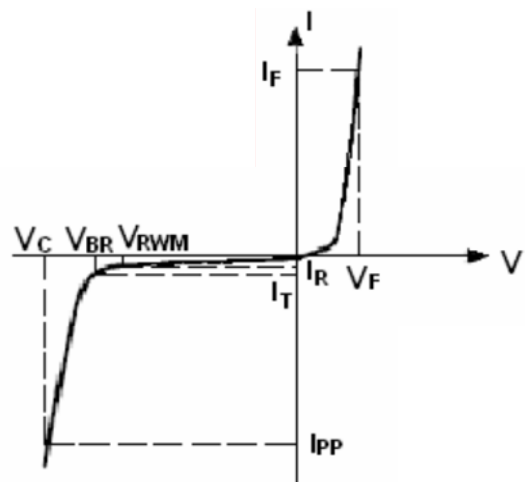
- Stand-off Voltage: 12V
- Low Leakage
- Response Time is Typically < 1ns
- IEC61000-4-2 Level 4 ESD Protection
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

DEVICE MARKING CODES:

Device Type	Device Marking
ESD5Z12V	ZM

Electrical Parameters

Symbol	Parameter
I _{PP}	Maximum Reverse Peak Pulse Current
V _C	Clamping Voltage @ I _{PP}
V _{RWM}	Working Peak Reverse Voltage
I _R	Maximum Reverse Leakage Current @ V _{RWM}
I _T	Test Current
V _{BR}	Breakdown Voltage @ I _T
I _F	Forward Current
V _F	Forward Voltage @ I _F



Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted, $V_F = 0.9\text{V Max.}$ @ $I_F = 10\text{mA}$ for all types)

Device Type	V_{RWM} (Volts)	I_R @ V_{RWM} (μA)	V_{BR} @ I_T (Note 2) (Volts)	I_T (mA)	I_{PP+} (A)	V_C @ Max I_{PP+} (Volts)	P_{PK+} (W)	C @ $V_R = 0\text{V}$, $f = 1\text{MHz}$ (pF)
	Max	Max	Min		Max	Max	Max	Typ.
ESD5Z12V	12	1	13.5	1.0	5	30	95	55

+ Surge current waveform per Figure 1.

Note 2: V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C .

SURGE CURRENT WAVEFORM:

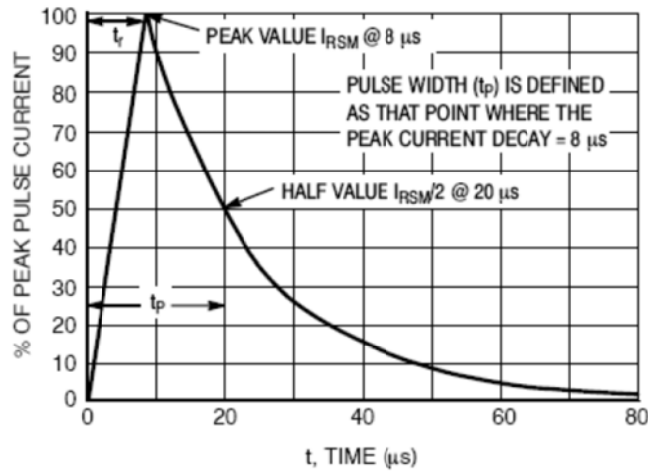
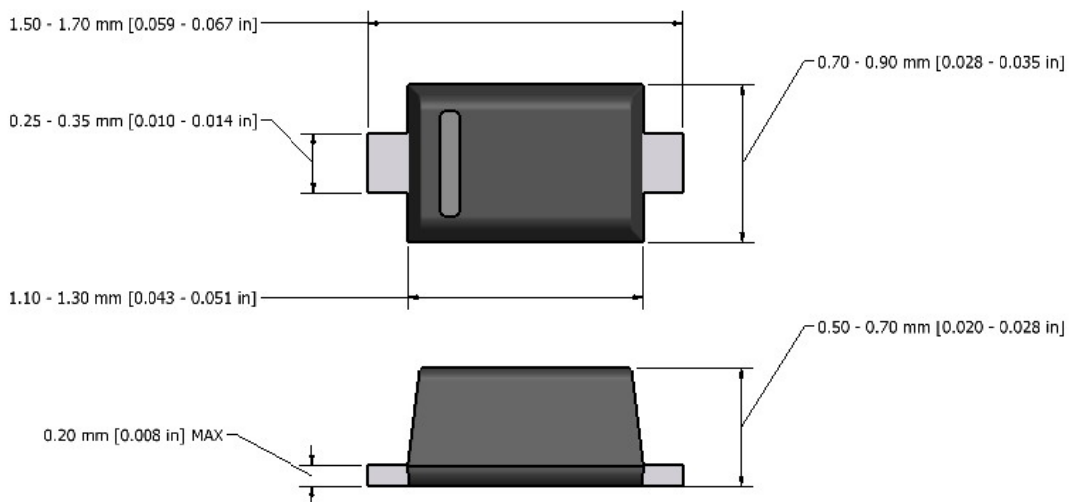


Figure 1. 8 x 20 μs Pulse Waveform

Flat Lead SOD-523 Package Outline



Note: Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.